

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA2004/000905

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04R5/033

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, PAJ, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 062 337 A (ZINSERLING ET AL) 16 May 2000 (2000-05-16) column 4, line 30 - column 6, line 20 figures 1-6	1
A	US 2002/181727 A1 (SHEN YAO-SHENG ET AL) 5 December 2002 (2002-12-05) page 1, right-hand column, paragraph 7 - page 2, left-hand column, paragraph 4 figures 1-3	1
A	US 5 684 879 A (VERDICK ET AL) 4 November 1997 (1997-11-04) column 3, line 30 - column 4, line 51 figures 1-3	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

28 February 2005

Date of mailing of the international search report

04/03/2005

Name and mailing address of the ISA

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 1 (in part)
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 1 (in part)

Present independent claim 1 attempts to define headphones for providing surround sound effects by general reference to the description and figures, which is not in accordance with Rule 6.2 (a) PCT and PCT Guidelines, Chapter 5, 5.10. However, the description and figures relate to a large number of features of the headphones, some of which features are optional and some are not. Thus, the present claim contains so many options that lack of clarity arises within the meaning of Article 6 PCT to such an extent as to render a meaningful search of the claim impossible. Consequently, the search has been carried out for claim 1 as far as it relates to those parts of the application which are presented as being essential to the headphones, viz.

Headphones for 3D sound comprising the following features:

- at least two speakers (cf. figures 1-6);
 - at least one tube connecting with a first end thereof one of said speakers and connecting with the second end thereof an outlet positioned adjacent to a users ear (cf. page 7, lines 13-14 and lines 25-28; page 9, lines 1-2);
 - the left and right tube sections are of the same length (cf. page 9, lines 2-3);
 - the at least two speakers are each housed in a vented acoustically sealed chamber (cf. page 10, lines 17-19 and lines 26-29);
 - at least two speakers are located at a distance d along the front/back tube from the centerline of the head (cf. page 8, lines 20-28 and page 9, lines 28-31), where
- $$d = a (\theta + \sin(\theta))/2$$
- a = radius of the head and
 θ = the angle (in radians) of the source that the speaker represents.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA2004/000905

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6062337	A	16-05-2000	DE 19616870 A1	30-10-1997
			AT 191308 T	15-04-2000
			AU 709695 B2	02-09-1999
			AU 1723497 A	19-11-1997
			DE 19745574 A1	22-04-1999
			DE 59701365 D1	04-05-2000
			WO 9741709 A1	06-11-1997
			EP 0895702 A1	10-02-1999
			ES 2146081 T3	16-07-2000
			JP 2000509226 T	18-07-2000
			DK 895702 T3	17-07-2000
US 2002181727	A1	05-12-2002	TW 522748 B	01-03-2003
			JP 2002369283 A	20-12-2002
US 5684879	A	04-11-1997	NONE	